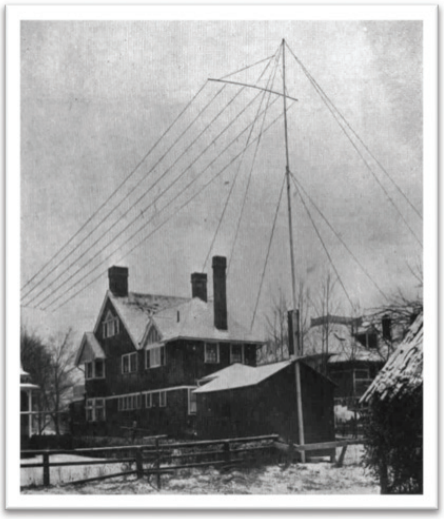
• E-mail: wn1m@msn.com

The Early Logbooks of Hiram Percy Maxim

Michael Marinaro WN1M offers a glimpse into the early era of wireless in the United States.



The Maxim residence with a later antenna.

Under the auspices of the Historical Committee, appointed by the ARRL Board of Directors, I, as volunteer Historian and Archivist at ARRL headquarters, have been cataloguing the previously unrecorded assemblage of paper material contained in the League files. This is the material that was not previously catalogued in an earlier effort using Microsoft Word and which occupies more than 40 file drawers.

To continue the project, a new format was developed using the Microsoft Access database program for ease of finding material subsequently. In the past two years 24 file drawers of specifically recorded material and 145 boxes of general and executive correspondence have been catalogued and stored in archival containers.

In the process of cataloguing this material, several discoveries of documents of historical import have been made. These documents had been preserved but not previously recorded. This article comments on one of these finds – the logbooks of **1ZM** and **1AW**.

Early Days

The logs are contained in two common ruled school notebooks. The entries are mostly in ink and remarkably clear after almost 100 years of storage – only a few pages are illegible.

The first book, labelled *French Notebook, H H Maxim*, with the first page entered as *Log of 1ZM*, covers the period May 14th 1919 to March 18th 1920. The second book, labelled *Log No. 2, Radio Station 1AW*, covers the entry periods March 2nd 1920 to December 16th 1921 and September 26 to 29th 1922. It contains at the end a number of fragmentary entries and typewritten attachments and insertions.

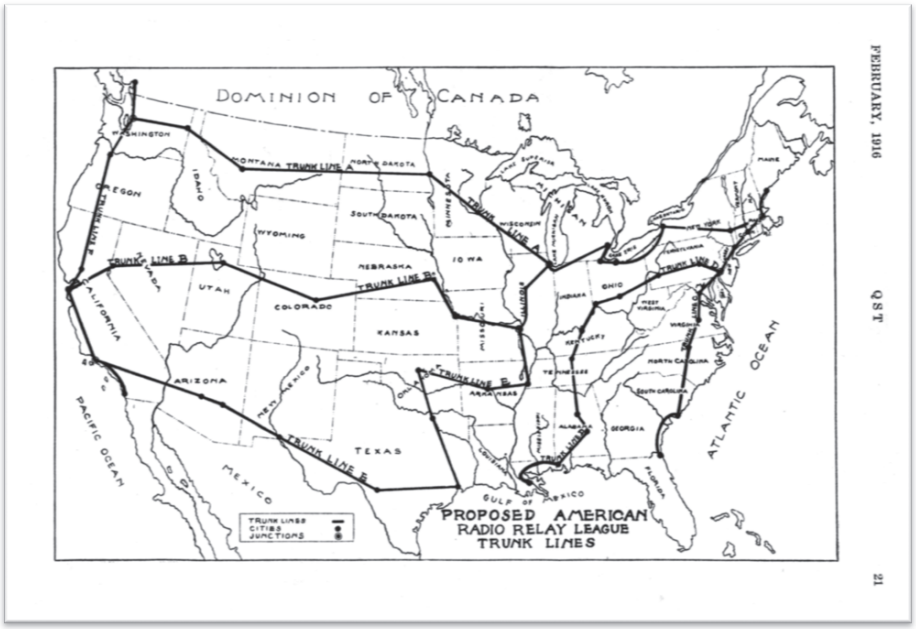
These post-WW1 logs are unlikely to be the very first written logs of ARRL founder **Hiram Percy Maxim** and his son **Hiram Hamilton Maxim**. They began operating in 1911 as SNY and SNW and in 1913 with official licensing as 1WH and 1ZH. They continued actively through the time of the founding of ARRL in 1914 and up to the government radio silence imposed in April 1917. After the war, the station callsign 1AW was issued to Maxim senior.

From its inception the station was a major relay link in the National Traffic System (NTS) that I have described previously in these pages (*V&V* March 2016). During these early years the station not only handled traffic but also originated and transmitted bulletins and announcements addressed *QST,* meaning *"to all radio amateurs".*

Return to the Air

The US ban on radio operations was not lifted for amateurs until November 1919. In anticipation of an imminent return to the air the first entries in the logbook, from May through August, are concerned with copying the code transmissions of government and permitted commercial stations and preparation of the station. Finally, on November 24th, the first contacts were made with 1FD and 2ZS. Subsequent entries record the

Maxim's spark transmitter, 'Old Betsy'.



The NTS preliminary concept.

re-emergence of the NTS, number of messages handled, band conditions and the maintenance and performance of the station. The individual stations heard and worked were recorded and later transcribed to appear in *QST*, the League's official journal.

Throughout, the names and signatures of visitors appear. Besides Hiram Percy Maxim, notable and frequent operators were ARRL functionaries General Manager **K B Warner**, Communications Manager **F D Schnell**, Secretary **C D Tuska** and two of the six original Directors, **D L Moore** and **R S Kruse**. This crew engaged in handling traffic and broadcasting announcements of events of interest to the growing member ranks. Each either signed or initialled their individual logbook entries. In addition to those that operated, the station hosted observing visitors too numerous to mention. Accordingly, the book contains the signatures of several early wireless dignitaries.

A typical and significant extract from the first logbook, as entered in pencilled script, reads:

"Dec. 4 (1919) Worked 8DA and took first transcontinental relay since war. Was from 6EA Los Angeles. Read – Hartford, Conn. to Hiram Percy Maxim, via 6EA, 6LF, 9BT, 8JZ, 8DA from Los Angeles Calif. Regards from 6EA sig Seefred.

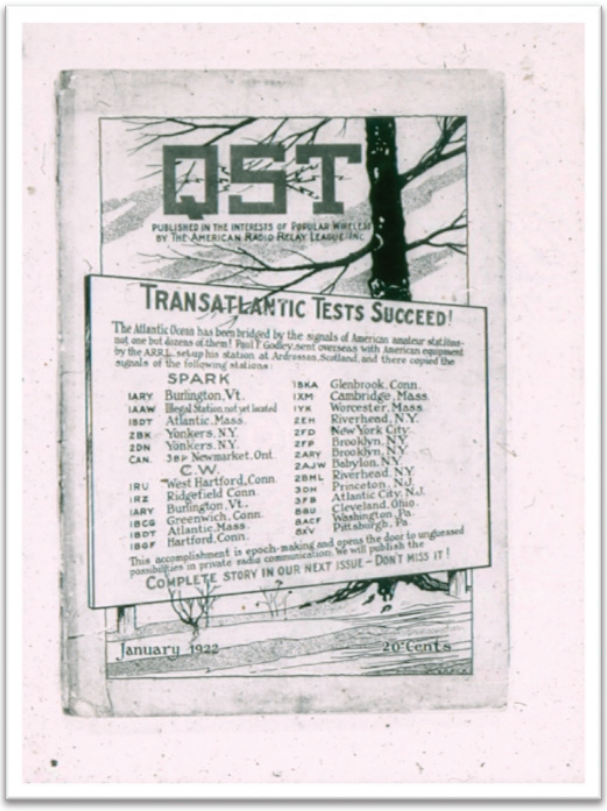
"Worked 1AP – Manchester – (used entire word each time).

"Called 1AN, 1AU, 1AS, 1CM but no answer. Impossible to get east.

10:30 to 11 worked 9ZN. Took message to K.B.W. from R.H.G.M. reading Pse hold date until Check curve will write rush R.H.G.M. HPM"

This extract records the receipt of the first message relayed across the continent since the end of the war. The 10:30pm entry concerns a message to K B Warner, ARRL General Manager, from **R H G Matthews**, ARRL Vice President.

Many log entries complain of noisy/static conditions (QRN) and fading signals (QSS). In an effort to understand the nature and cause of fading the ARRL and the U S Bureau of Standards undertook a cooperative programme of study. 243 receiving stations were enlisted to record the simultaneous transmissions of 17 sending stations, including W1AW. The logs indicate that W1AW, with Hiram Percy Maxim operating, made the first transmission in the test on June 1st 1920 and that the station was a consistent participant in the programme until its conclusion in the spring of 1921. Although the resultant data was inconclusive, it did provide insights into short wave propagation.


QST
PUBLISHED IN THE INTERESTS OF REGULAR WIRELESS
BY THE AMERICAN RADIO RELAY LEAGUE, INC.
TRANSATLANTIC TESTS SUCCEED!
The Atlantic Ocean has been bridged by the signals of American amateur stations
SPARK
1ARY Burlington, Vt.
1AAW Illegal Station not yet located
1BDT Atlantic, Mass.
2BK Yonkers, N.Y.
2DN Yonkers, N.Y.
CAN. 3BP Newmarket, Ont.
C.W.
1RU West Hartford, Conn.
1RZ Ridgefield Conn.
1ARY Burlington, Vt.
1BCG Greenwich, Conn.
1BDT Atlantic, Mass.
1BGF Hartford, Conn.
1SKA Glenbrook, Conn.
1XM Cambridge, Mass.
1YK Worcester, Mass.
2EH Riverhead, N.Y.
2FD New York City
2FP Brooklyn, N.Y.
2ARY Brooklyn, N.Y.
2AJW Babylon, N.Y.
2BML Riverhead, N.Y.
3DH Princeton, N.J.
3FB Atlantic City, N.J.
8BU Cleveland, Ohio
8ACF Washington, Pa.
8KV Pittsburgh, Pa.
This accomplishment in epoch-making and opens the door to unguessed possibilities in private radio communication. We will publish the
COMPLETE STORY IN OUR NEXT ISSUE – DON'T MISS IT!
January 1922
20 Cents

QST trumpets the success of the transatlantic tests.

The 1920s

The 1920s roared in with a rush of interest in radiophone. Broadcasters appeared, competing with amateurs and commercials for wavelength. This situation was relieved in 1922 when the US Department of Commerce recognised radio amateurs as a distinct entity and imposed precise frequency allocations separating the services. In March 1920 Tuska installed gear and introduced W1AW to the phone mode. The station sporadically used the mode to send announcements but rarely to make contacts.

Two major operating events occupied the staff during 1921. The first of these were the transcontinental tests, which were held between the nights of January 14/15th and 17/18th. The object of the tests was to send a message from one US coast to the other and to receive an answering message in response in the least amount of time. The standing record was one hour and 20 minutes east coast to west coast round trip. The efficiency of the NTS and the competence of its relay operators were challenged in this event. After several other round trip relays had been completed successfully a new record was established just before the east coast dawn on the last night of the event. 1AW (Hartford) sent a message via 9ZN (Chicago) and 5ZA (Roswell, New Mexico), which was received by 6JD in San Francisco who dispatched a response that travelled back over the same route in a total elapsed round trip time of six and a half minutes. The back of the logbook has a number of typewritten pages stapled in, which is draft of the report of the event that later appeared in *QST*.

The second operating event was the first

transatlantic test, which was run the following month during early February. The objective was for pre-qualified US stations to be heard by British amateurs. On February 5/6th, **F S Schnell** had recorded in the log, *"Ran off transatlantic on time – not much hope."* This signified that 1AW had transmitted the signal that had been assigned to the station at the precisely designated time on a wavelength of 200m. The carefully orchestrated event was a failure. Not one of the 25 US stations was heard by the 250 or so listening British. But this was not the last thrust in this effort.

In early August the station was inactive while the staff attended the first ARRL National Convention in Chicago. At this event, the Board of Directors met and considered actions to reverse the failure of the first transatlantic tests. The Board of Directors determined to conduct a second test in early December with an official US listener posted in Britain. The log records the stations heard in the qualification preliminaries in November, the actual tests in December and Schnell engaging the station in the free-for-all finale on December 16/17th. The event was a big success but not for 1AW, which was not among the 30 US and Canadian stations heard. This event also settled a controversy – spark was dethroned and CW was crowned king.

Wrap Up

Hiram Percy Maxim's May 13th log entry states, *"No regular log kept up to here – station not operated regularly because of pressure of other affairs".* The discipline of the log deteriorates from this point onward with fragmentary and some unintelligible records.

The operations of the station at the Maxim home were gradually assumed by expanding operations from the League's confined Hartford offices using the callsign 1MK. In 1928, these functions were fully assumed by a modern station constructed at the newly created suburban airport, Brainard Field. The most advanced amateur radio station of its time, W1MK became the loud voice of the League. This station was destroyed by flood in 1936 and replaced in 1938 with the now well-known W1AW – The Hiram Percy Maxim Memorial Station in Newington, Connecticut.

Overall the logs provide insights into the operations of a significant wireless era. They fill in a great deal about the nature of this eventful period and provoke questions of detail and background that suggest further research.

The W1MK station at ARRL HQ, mid-period layout.

The Hartford offices of ARRL.

An early W1AW layout.

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